What Is Claimed:

## 1. A compound of Formula I,

wherein:

5

10

15

Y<sup>1A</sup> and Y<sup>1B</sup> are independently Y<sup>1</sup>;

 $R^{x_1}$  and  $R^{x_2}$  are independently  $R^x$ ;

 $Y^1$  is =O, -O(R<sup>x</sup>), =S, -N(R<sup>x</sup>), -N(O)(R<sup>x</sup>), -N(OR<sup>x</sup>), -N(O)(OR<sup>x</sup>), or -N(N(R<sup>x</sup>)(R<sup>x</sup>));

 $R^{x}$  is independently  $R^{1}$ ,  $R^{2}$ ,  $R^{4}$ ,  $W^{3}$ , or a protecting group;

R<sup>1</sup> is independently -H or alkyl of 1 to 18 carbon atoms;

R<sup>2</sup> is independently R<sup>3</sup> or R<sup>4</sup> wherein each R<sup>4</sup> is independently substituted with 0 to 3 R<sup>3</sup> groups or taken together at a carbon atom, two R<sup>2</sup> groups form a ring of 3 to 8 carbons and the ring may be substituted with 0 to 3 R<sup>3</sup> groups;

 $R^3$  is  $R^{3a}$ ,  $R^{3b}$ ,  $R^{3c}$  or  $R^{3d}$ , provided that when  $R^3$  is bound to a heteroatom, then  $R^3$  is  $R^{3c}$  or  $R^{3d}$ ;

 $R^{3a}$  is -H, -F, -Cl, -Br, -I, -CF<sub>3</sub>, -CN, N<sub>3</sub>, -NO<sub>2</sub>, or -OR<sup>4</sup>;

20  $R^{3b}$  is =O, -O(R<sup>4</sup>), =S, -N(R<sup>4</sup>), -N(O)(R<sup>4</sup>), -N(O)(OR<sup>4</sup>), or -N(N(R<sup>4</sup>)(R<sup>4</sup>));

 $R^{3c} \text{ is } -R^4, -N(R^4)(R^4), -SR^4, -S(O)R^4, -S(O)_2R^4, -S(O)(OR^4), -S(O)_2(OR^4), -OC(R^{3b})R^4, -OC(R^{3b})OR^4, -OC(R^{3b})(N(R^4)(R^4)), -SC(R^{3b})R^4, -SC(R^{3b})OR^4, -OC(R^{3b})OR^4, -OC(R^{$ 

 $SC(R^{3b})(N(R^4)(R^4))$ ,  $-N(R^4)C(R^{3b})R^4$ ,  $-N(R^4)C(R^{3b})OR^4$ ,  $-N(R^4)C(R^{3b})(N(R^4)(R^4))$ ,  $W^3$  or  $-R^5W^3$ ;

 $R^{3d}$  is  $-C(R^{3b})R^4$ ,  $-C(R^{3b})OR^4$ ,  $-C(R^{3b})W^3$ ,  $-C(R^{3b})OW^3$  or  $-C(R^{3b})(N(R^4)(R^4))$ ;

R<sup>4</sup> is -H, or an alkyl of 1 to 18 carbon atoms, alkenyl of 2 to 18 carbon atoms, or alkynyl of 2 to 18 carbon atoms;

 $m R^5$  is alkylene of 1 to 18 carbon atoms, alkenylene of 2 to 18 carbon atoms, or alkynylene of 2 to 18 carbon atoms;

 $W^3$  is  $W^4$  or  $W^5$ ;

 $W^4$  is  $R^6$ ,  $-C(R^{3b})R^6$ ,  $-C(R^{3b})W^5$ ,  $-SO_{M2}R^6$ , or  $-SO_{M2}W^5$ , wherein  $R^6$  is  $R^4$  wherein each  $R^4$  is substituted with 0 to 3  $R^3$  groups;

 $W^5$  is carbocycle or heterocycle wherein  $W^5$  is independently substituted with 0 to 3  $\mathbb{R}^2$  groups; and

M2 is 0, 1 or 2;

and pharmaceutically acceptable salts thereof.

15

5

- 2. The compound of claim 1 wherein  $R^{X_1}$  is H.
- 3. The compound of claim 2 wherein  $R^{x_2}$  is  $W^3$ .
- 20 4. The compound of claim 3 wherein  $W^3$  is  $W^5$ .
  - 5. The compound of claim 4 wherein W<sup>5</sup> is cyclopropyl.

6. The compound of claim 5 of the Formula IA,

5

- 7. The compound of claim 6 wherein  $Y^{1A}$  and  $Y^{1B}$  are  $-N(R^{X})$ .
- 8. The compound of claim 7 wherein  $R^{x}$  is  $R^{2}$ .
- 10 9. The compound of claim 8 wherein R<sup>2</sup> is R<sup>4</sup> substituted with R<sup>3d</sup>.
  - 10. The compound of claim 9 wherein R<sup>4</sup> is ethyl substituted with R<sup>3d</sup>.
  - 11. The compound of claim 10 wherein  $R^{3d}$  is  $-C(R^{3b})OR^4$ .

- 12. The compound of claim 11 wherein  $R^{3b}$  is =0.
- 13. The compound of claim 12 wherein  $R^4$  is propyl.
- 20 14. The compound of claim 13 wherein R<sup>4</sup> is n-propyl.

10

15. The compound of claim 14 of the formula,

16. The compound of claim 13 wherein  $R^4$  is *i*-propyl.

17. The compound of claim 16 of the formula,

- 18. The compound of claim 10 wherein  $R^{3d}$  is  $-C(R^{3b})OW^3$ .
- 19. The compound of claim 18 wherein  $R^{3b}$  is =0.
- 20. The compound of claim 19 wherein  $W^3$  is  $W^5$ .
- 15 21. The compound of claim 20 wherein  $W^5$  is a carbocycle.

WO 2005/066189

- 22. The compound of claim 9 wherein R<sup>4</sup> is propyl substituted with R<sup>3d</sup>.
- 23. The compound of claim 22 wherein  $R^{3d}$  is  $-C(R^{3b})OR^4$ .

- 24. The compound of claim 23 wherein  $\mathbb{R}^{3b}$  is =0.
- 25. The compound of claim 24 wherein  $\mathbb{R}^4$  is ethyl.
- 10 26. The compound of claim 25 of the formula,

- 27. The compound of claim 24 wherein R<sup>4</sup> is butyl.
- 15 28. The compound of claim 27 wherein  $\mathbb{R}^4$  is n-butyl.

29. The compound of claim 28 of the formula,

- 30. The compound of claim 24 wherein  $R^4$  is propyl.
- 31. The compound of claim 30 wherein  $R^4$  is *i*-propyl.
- 32. The compound of claim 31 of the formula,

10

- 33. The compound of claim 8 wherein  $R^2$  is  $R^4$  independently substituted with two  $R^3$  groups.
- 34. The compound of claim 33 wherein R<sup>4</sup> is methyl substituted with two R<sup>3</sup> groups.

- 35. The compound of claim 34 wherein one R³ group is R³c.
- 36. The compound of claim 35 wherein  $R^{3d}$  is  $-R^5W^3$ .

5

- 37. The compound of claim 36 wherein R<sup>5</sup> is methylene.
- 38. The compound of claim 37 wherein  $W^3$  is  $W^5$ .
- 10 39. The compound of claim 38 wherein W⁵ is phenyl.
  - 40. The compound of claim 35 wherein the other R<sup>3</sup> group is R<sup>3d</sup>.
  - 41. The compound of claim 40 wherein  $R^{3d}$  is  $-C(R^{3b})OR^4$ .

- 42. The compound of claim 41 wherein  $R^{3b}$  is =0.
- 43. The compound of claim 42 wherein  $R^4$  is butyl.
- 20 44. The compound of claim 43 wherein  $R^4$  is *i*-butyl.

20

45. The compound of claim 44 of the formula,

- 5 46. The compound of claim 6 wherein  $Y^{1A}$  is  $-N(R^{X})$ .
  - 47. The compound of claim 46 wherein  $R^{x}$  is  $R^{2}$ .
  - 48. The compound of claim 47 wherein R<sup>2</sup> is R<sup>4</sup> substituted with R<sup>3d</sup>.
- 49. The compound of claim 48 wherein R<sup>4</sup> is ethyl substituted with R<sup>3d</sup>.
  - 50. The compound of claim 49 wherein  $R^{3d}$  is  $-C(R^{3b})OR^4$ .
- 15 51. The compound of claim 50 wherein  $R^{3b}$  is =0.
  - 52. The compound of claim 51 wherein R<sup>4</sup> is propyl.
  - 53. The compound of claim 52 wherein  $R^4$  is *i*-propyl.
  - 54. The compound of claim 46 wherein  $Y^{1B}$  is  $-N(\mathbb{R}^{X})$ .

| 55. | The compound    | d of claim | 54 wherein  | RX is R2        |
|-----|-----------------|------------|-------------|-----------------|
| 00. | TILE COILLEOUIL | a or claim | OZ WILCICHI | $11 \times 121$ |

- 56. The compound of claim 55 wherein R<sup>2</sup> is R<sup>4</sup> independently substituted with two R<sup>3</sup> groups.
  - 57. The compound of claim 56 wherein R<sup>4</sup> is methyl substituted with two R<sup>3</sup> groups.
- 10 58. The compound of claim 57 wherein one R³ group is R³c.
  - 59. The compound of claim 58 wherein  $R^{3c}$  is  $-R^5W^3$ .
  - 60. The compound of claim 59 wherein -R<sup>5</sup>- is methylene.
- 61. The compound of claim 60 wherein W<sup>3</sup> is W<sup>5</sup>.

15

- 62. The compound of claim 61 wherein W<sup>5</sup> is phenyl.
- 20 63. The compound of claim 58 wherein the other R³ group is R³d.
  - 64. The compound of claim 63 wherein  $R^{3d}$  is  $-C(R^{3b})OR^4$ .
  - 65. The compound of claim 64 wherein  $R^{3b}$  is =0.
  - 66. The compound of claim 65 wherein R<sup>4</sup> is butyl.
  - 67. The compound of claim 66 wherein  $R^4$  is *i*-butyl.

68. The compound of claim 67 of the formula,

5

- 69. The compound of claim 63 wherein  $R^{3d}$  is  $-C(R^{3b})OW^3$ .
- 70. The compound of claim 69 wherein  $R^{3b}$  is =0.
- 10 71. The compound of claim 70 wherein  $W^3$  is  $W^5$ .
  - 72. The compound of claim 71 wherein W<sup>5</sup> is a carbocycle.
  - 73. The compound of claim 6 wherein  $Y^{1B}$  is  $-O(\mathbb{R}^{X})$ .

- 74. The compound of claim 73 wherein  $Y^{1B}$  is  $-O(W^3)$ .
- 75. The compound of claim 74 wherein  $W^3$  is  $W^5$ .
- 20 76. The compound of claim 75 wherein W<sup>5</sup> is a carbocycle.

- 77. The compound of claim 76 wherein said carbocycle is phenyl.
- 78. The compound of claim 77 of the formula,

- 79. The compound of claim 78 wherein  $Y^{1A}$  is  $-N(R^X)$ .
- 80. The compound of claim 79 wherein  $R^{x}$  is  $R^{2}$ .
- 10 81. The compound of claim 80 wherein  $R^2$  is  $R^4$  substituted with  $R^{3d}$ .
  - 82. The compound of claim 81 wherein R<sup>4</sup> is ethyl substituted with R<sup>3d</sup>.
  - 83. The compound of claim 82 wherein  $R^{3d}$  is  $-C(R^{3b})OR^4$ .

- 84. The compound of claim 83 wherein  $R^{3b}$  is =0.
- 85. The compound of claim 84 wherein R<sup>4</sup> is propyl.
- 20 86. The compound of claim 85 wherein  $R^4$  is n-propyl.
  - 87. The compound of claim 86 of the formula,

- 88. The compound of claim 81 wherein R<sup>4</sup> is propyl substituted with R<sup>3d</sup>.
- 5 89. The compound of claim 88 wherein  $R^4$  is n-propyl substituted with  $R^{3d}$ .
  - 90. The compound of claim 89 wherein  $R^{3d}$  is  $-C(R^{3b})OR^4$ .
  - 91. The compound of claim 90 wherein  $R^{3b}$  is =0.
  - 92. The compound of claim 91 wherein R<sup>4</sup> is butyl.
  - 93. The compound of claim 92 wherein  $R^4$  is n-butyl.
- 15 94. The compound of claim 93 of the formula,

- 95. The compound of claim 79 wherein  $R^{x}$  is  $R^{2}$ .
- 5 96. The compound of claim 95 wherein R<sup>2</sup> is R<sup>4</sup> substituted with R<sup>3c</sup> and R<sup>3d</sup>.
  - 97. The compound of claim 96 wherein R<sup>4</sup> is ethyl substituted with R<sup>3c</sup> and R<sup>3d</sup>.
  - 98. The compound of claim 97 wherein  $R^{3c}$  is  $-R^5W^3$ .

- 99. The compound of claim 98 wherein –R<sup>5</sup> is methylene.
- 100. The compound of claim 99 wherein W<sup>3</sup> is W<sup>5</sup>.
- 15 101. The compound of claim 100 wherein W<sup>5</sup> is a carbocycle.
  - 102. The compound of claim 101 wherein said carbocycle is phenyl.
  - 103. The compound of claim 102 wherein  $R^{3d}$  is  $-C(R^{3b})OR^4$ .
    - 104. The compound of claim 103 wherein  $R^{3b}$  is =0.

- 105. The compound of claim 104 wherein R<sup>4</sup> is ethyl.
- 106. The compound of claim 105 of the formula,

- 107. The compound of claim 6 wherein  $Y^{1A}$  and  $Y^{1B}$  are  $-O(\mathbb{R}^{X})$ .
- 10 108. The compound of claim 2 wherein  $R^{x_2}$  is  $R^4$ .
  - 109. The compound of claim 108 wherein  $\mathbb{R}^4$  is alkyl.
  - 110. The compound of claim 108 wherein R<sup>4</sup> is alkenyl.

- 111. The compound of claim 108 wherein R<sup>4</sup> is alkynyl.
- 112. The compound of claim 110 wherein R<sup>4</sup> is 2-propenyl.
- 20 113. The compound of claim 2 wherein  $R^{x_2}$  is  $R^2$ .

114. The compound of claim 113 wherein R<sup>2</sup> is R<sup>4</sup> substituted with one R<sup>3</sup>.

- 115. The compound of claim 114 wherein R<sup>4</sup> is methyl substituted with one R<sup>3</sup>.
- 5 116. The compound of claim 115 wherein  $R^3$  is  $R^{3a}$ .
  - 117. The compound of claim 116 wherein R<sup>3a</sup> is -CF<sub>3</sub>.
  - 118. The compound of claim 115 wherein R<sup>4</sup> is –CH<sub>2</sub>-CF<sub>3</sub>.

10

- 119. The compound of claim 1 used as an antiproliferative agent.
- 120. The compound of claim 1 used as an apoptotic agent.
- 15 121. The compound of claim 1 used as an anti-HPV agent.
  - 122. The compound of claim 1 used as a topical anti-HPV agent.
  - 123. The compound of claim 1 used as an antiproliferative agent.

20

- 124. The compound of claim 1 used as an apoptitic agent.
- 125. A pharmaceutical composition comprising an effective amount of a compound of claim 1 or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.
- 126. The pharmaceutical composition of claim 125, where said composition is a gel composition.

127. The pharmaceutical composition of claim 125, where said composition is an ointment composition.

- 5 128. A pharmaceutical composition comprising an effective amount of a compound of claim 1 or a pharmaceutically acceptable salt thereof, and an effective amount of at least one antiviral agent, and a pharmaceutically acceptable carrier.
- 10 129. The pharmaceutical composition of claim 128, where said composition is a gel composition.

15

130. The pharmaceutical composition of claim 128, where said composition is an ointment composition.